

Applicant Name	Montana Department of Natural Resources and Conservation (DNRC), Water Resources Division (WRD)
Project Name	Smith Creek Canal Seepage Abatement and Rehabilitation

Project Abstract

The Nilan Water Project (NWP) is owned by the DNRC and operated by the Nilan Water Users Association. The project originally comprised a 10,092 acre-foot, off-stream reservoir, a 5.5 mile-long supply canal, and three delivery canals, totaling 23.5 miles in length. The storage water carried by the supply canal is provided by two sources, Smith Creek and Ford Creek. The Smith Creek branch of the supply canal is 3.7 miles long. Construction of the original project was completed in 1951, and ownership of the 16.5 mile-long Florence Canal was transferred to the Water Users in 1995.

Water from the project provides lifeblood for agriculture, fish and wildlife, and recreation. It irrigates ranch and farmland; recharges the flow of two local streams, Smith Creek and Elk Creek; supports local wildlife habitat; provides fisheries for rainbow and brown trout; and offers a recreational resource to boaters, hunters, and fishers.

Due to deterioration from age, slope instability, and insufficient repairs, the Smith Creek branch of the Supply Canal now requires substantial rehabilitation. The right bank of the canal failed after the spring runoff in 2005, and it was shut down for the remainder of the irrigation season. The canal requires considerable work to repair.

When measured in May 2005, the canal lost 22% of its water at low flows; a higher loss is assumed at full flow. This considerable quantity of water is lost through the pervious canal channel. In addition to causing the slope failure, seepage from the canal also floods hay fields and adversely affects private property in other ways. To compound these problems, the drastic water shortages suffered by the Water Users during the eight consecutive years of drought have brought some ranchers and farmers to the brink of bankruptcy. The Nilan Water Users wish to stem the loss of water from the Smith Creek Supply Canal, stop the damage, and return this precious resource to beneficial use.

In order to address these concerns, the DNRC State Water Projects Bureau (SWPB) proposes to rehabilitate the canal by (1) installing canal lining on the most pervious reaches of the canal and (2) fortifying the canal against slope failure by applying shotcrete on the left inner side slope. These measures will rehabilitate the Nilan Water Project's infrastructure, protect private property, and conserve water.

For these reasons, the DNRC-WRD is requesting a grant of \$100,000 and a loan of \$50,000 to rehabilitate the Smith Creek Supply Canal, and thereby prevent seepage, protect private property, and conserve water for more beneficial use to landowners and the general public.